

LOVELAND CONSTRUCTION AND DEMOLITION

January 2024

The following memorandum was developed by the FRWD Technical Assistance Serve Provider (TASP) program team. The TASP program's mission is to assist Front Range communities and K-12 school districts in advancing waste diversion in the region. Should you have additional questions please reach out to the TASP team directly frontrangetasp@recycle.com.

City staff in Loveland requested support from TASP to help explore strategies for improving sustainable materials management of construction and demolition materials. This memorandum aims to serve as a foundational guide for Loveland's next steps, presenting various policy types, considerations, and examples of ordinances currently in practice. The memorandum is focused on policy and incentive options municipalities can implement to promote sustainable construction and deconstruction.

- Policies include optional or mandatory options to improve sustainable materials management from construction or deconstruction sites. Policy types are further outlined below.
- Incentives are usually opt-in for participation, incentives may include grants, permitting preferences, technical support, and other voluntary options.

Types:

1. Diversion Plans: Require project leads, such as contractors or developers, to submit brief plans covering the anticipated debris types and / or estimated amounts, outline their waste stream management strategies that encompass recycling, reuse, and disposal options. Diversion plans can be either voluntary or mandatory, with the potential inclusion of specific diversion goals. Submission of these plans is often tied to the permitting process.
2. Mandatory Minimums: Establish a requirement specifying a minimum percentage of generated waste materials that must be diverted from disposal (i.e. new construction must recycle or divert at least 25% of their waste materials). Typically tracked through submission of weight tickets or hauler provided documentation.
3. Mandatory Materials: Establish a requirement specifying that targeted materials must be diverted from disposal (i.e. all projects must recycle, reuse, or donate at least 3 of the following materials: cardboard, wood, metal, concrete, shingles).
4. Deposits: Stakeholders, such as builders, pay a deposit when securing their building permit. The deposit is calculated based on project features such as type, estimated material tonnages, or square footage. To qualify for a full or partial deposit refund, stakeholders must adhere to diversion requirements often tied to mandatory minimums or materials. Projects that meet the diversion requirement receive the full deposit back, ones that do not either forfeit some or all their deposit.
5. Material Disposal Bans: Enforce restrictions on certain materials from landfill disposal, typically focusing on those easily accepted and diverted at nearby landfills and efficiently source separated at job sites. Haulers may refuse loads containing a high percentage of banned materials. This type of policy works best in communities that own or manage landfill or transfer station.

6. Infrastructure Development: Policy decisions that support funding opportunities for processing facilities dedicated to sorting, processing, and recycling construction and demolition waste. Alternatively, support entities engaged in the recovery and upcycling of used building materials.
7. Education and Awareness: Targeted engagement to enhance awareness and drive recycling efforts for construction and demolition materials. For example, creating and sharing a listing of all C&D diversion options in the region with all contractors.
8. Grants: Community provided grants made available to contractors or builders to support C&D material diversion. For example, contractors can utilize grants to offset potential costs of meeting diversion requirements.
9. Job Training: Community supported program to train contractors in deconstruction techniques.
10. Permitting Incentives: Provision of beneficial permitting considerations (expedited process, reduced fees, etc.) for projects that achieve higher rates of C&D material diversion.

Policy Considerations:

- Applicability: The policy types above can impact different job types based on new construction, demolition, renovation, square footage, value, or other options.
- Timeline: Several policies follow a phased approach, gradually implementing changes such as starting with a voluntary diversion plan and escalating to mandatory materials or minimums over several years.
- Enforcement and Compliance: Policies can be voluntary or required but to succeed must include an enforcement mechanism to increase compliance.
- Available infrastructure: Understanding the regional infrastructure and what can realistically be diverted from disposal is an integral part of policy development. For example, Loveland should not adopt a 75% diversion requirement if the regional infrastructure does not exist for contractors to meet this requirement.

Ordinances in Action:

In **Boulder, Colorado** new construction requirements mandate a 2-page application specifying project details and identifying recycling content, along with the obligation to recycle 100% clean wood, metal, and cardboard. Applicants are required to submit a waste diversion tracking spreadsheet upon completion of the project. For sustainable deconstruction involving full structure removal and level 4 alterations, a comprehensive plan must be developed before applying for a demolition permit. The sustainable deconstruction plan aims for a 75% diversion by weight, encompassing materials like asphalt and concrete. To ensure compliance, a deposit cost of \$1 per square foot is imposed, with a \$1500 minimum and an additional administrative fee of \$219. This deposit is refundable upon submission of weights into the City Tracking Forms.

In **Fort Collins, Colorado**, C&D requirements apply to new construction, additions, remodels exceeding 2,500 square feet, and demolition projects surpassing 1,000 square feet. Mandatory recycling includes wood waste, scrap metal, concrete (and other aggregates), and cardboard for new construction, while demolition projects are obligated to recycle metal, concrete, aggregate, and masonry. Both types of projects require the submission of a Construction Materials Management Plan with the permit application, and post-project completion. The plan must detail the disposed waste amount, disposal locations, and provide disposal facility tickets. Notably, there is no specified diversion percentage, and projects are not obligated to pay a Diversion Compliance Deposit. However, failure to comply with the ordinance can result in fines of up to \$3,000 per day and a potential jail term of up to 6 months.

Pitkin County, Colorado's Construction & Demolition Debris Recovery Program, implemented in 2020, initiates at the building permit request, automatically enrolling projects into the Green Halo Program. The program features a deposit-refund system, requiring a minimum 25% diversion rate on all projects, with a 100% separation of select materials. The Diversion Compliance Deposit is calculated based on the estimated total tons of waste multiplied by the per-ton rate set by Pitkin County. Mandatory separation of materials includes concrete, corrugated cardboard, porcelain, scrap metal, rock and dirt, single-stream recyclables, organics, and untreated lumber and pallets. Projects track their materials online using Green Halo and must submit data for a refund application and eligibility for a final building inspection. A partial refund (50%) is granted if at least 20% of total waste is diverted, but recoverable materials are sent to the trash. In 2023, 96% of projects received a 100% refund.

In **Austin, Texas**, the Construction and Demolition Recycling Ordinance applies to building permits exceeding 5,000 square feet of new, added, or remodeled floor area, including all commercial and multi-family demolition projects added in 2019. The ordinance mandates the recycling of at least 50% of debris or the disposal of no more than 2.5 lbs. of debris per square foot. The policy began in 2016 and square footage decreases over time. Submission of a weight ticket summary spreadsheet is required. City staff noted minimal compliance without a deposit or enforcement mechanism, and as of 2024, the submission rate for weight ticket summaries is 64%, with a compliance rate of 58%.

Seattle Public Utilities initiated a pilot deconstruction incentive program in October 2022 to promote deconstruction projects. Under this program, deconstruction projects receive a financial incentive of \$4,000 each. In addition, their Priority Green Expedited program offers an expedited construction permit process in exchange for meeting green building certification and other specified criteria, providing an additional benefit for participating in deconstruction projects in Seattle.

TASP stands for Technical Assistance Service Provider and is a program of the Front Range Waste Diversion Enterprise Grant Fund which is administered by CDPHE and the FRWD Board of Directors. The mission of TASP is to directly assist local governments across the Front Range with increasing diversion rates and reducing waste by implementing sustainable, long-term solutions.